A SYSTEM AND PROCESS FOR BROADCAST AND COMMUNICATION WITH VERY LOW BIT-RATE BI-LEVEL OR SKETCH VIDEO

ABSTRACT OF THE DISCLOSURE

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A system and process for broadcast and communication with bi-level or sketch video at extremely low bandwidths is described. Essentially, bi-level and sketch video presents the outlines of the objects in a scene being depicted. Bi-level and sketch video provides a clearer shape, smoother motion, shorter initial latency

10 and cheaper computational cost than do conventional DCT-based video compression methods. This is accomplished by converting each color or gray-scale image frame to bi-level or sketch image frame using adaptive thresholding method, compressing bi-level or sketch image frames into bi-level or sketch video using adaptive context-based arithmetic coding method. Bi-level or

15 sketch video is particularly suitable to such small devices as Pocket PCs and mobile phones that possess small display screen, low bandwidth connection, and light computational power.